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AMENDMENTS TO THE CLAIMS:

Please amend the claims to read as follows, and add new claims as listed below. The listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. (Currently Amended) A method for sensing a temperature change in vivo, ~~an environment~~, the method comprising:
 - introducing in vivo ~~into the environment~~ an image sensor having an image sensing module;
 - sensing the dark current noise of the image sensing module;
 - obtaining a dark current data sample; ~~and~~
 - comparing a dark current data sample to a previous ~~sample~~ sample; ~~and~~
 - determining the temperature change in vivo according to the comparison.
2. (Currently amended) A system for sensing a temperature change in vivo ~~an environment~~ comprising:
 - an image sensor;
 - an integrating unit; and
 - a change detector;
 - said image sensor being introduced in vivo; ~~into an environment~~; and
 - said integrating unit receiving dark current noise samples from the image sensor, and said change detector detecting changes between dark current noise samples and determining the temperature change in vivo according to the changes.
3. (Currently Amended) A method for sensing a temperature change in vivo, ~~an environment~~, the method comprising:
 - introducing in vivo ~~into the environment~~ an image sensor;
 - sensing the dark current noise of the image sensor;
 - obtaining a dark current data sample; and
 - determining a change in temperature in vivo.

4. (Currently Amended) A device for sensing a temperature change in vivo, ~~an environment~~, the device comprising:
 - an image sensor;
 - a controller to accept ~~the~~ a dark current noise of the image sensor, to obtain a dark current data sample, and to determine a change in temperature in-vivo.
5. (New) A method according to claim 1, wherein the image sensor is contained within an autonomous in vivo device.
6. (New) A method according to claim 1, comprising displaying the in vivo temperature.
7. (New) A method according to claim 2, wherein communication between said integrating unit amplifies said dark current noise samples received from said image sensor.
8. (New) A system according to claim 2, wherein said image sensor and said integrated unit are controlled according to an illumination condition.
9. (New) A system according to claim 3, wherein the image sensor is contained within an autonomous in vivo device.
10. (New) A method according to claim 3, wherein said image sensor comprises a CMOS.
11. (New) A device according to claim 4, wherein said image sensor senses the dark current noise during a dark period.
12. (New) A device according to claim 4, wherein said image sensor communicates with said controller during periods when said image sensor is not illuminated.